FIGURE 1

AMSH1	Thire ftillity IVPkqsag poyco menyfelfnyqdqhdlltlighiififfiq tafls
AMSH2	Thne ftith vive kūsag pdycd menve elenvūdūhd llī ligni∰t∰fīū tafls
AMSH	hrne ftithy lipkūsag sdycntenee elfliodooglitlowiejtepp tafls
Ronll	tyrvidviamposgīgvsvelavdpvedakmidnīkotgrpemvvgnybshpgtgchls
Jabl	tmiimdstalevegtetrvnaqaaayeyraayienakovgrienaigwyes#pgygcwls
	1 1 . 1 1 . # , 1 # # # # # # # # # # # # # # # # #
AMSH1	sylinthcəyqimlpeaiaivcsprhkdigibriitnagmleysackkegfhph
AMSH2	SVELHTHCSYÖLMLPEATAT VCSPK HKDTG TYRLTNAGHLEVSACKKRGFHPH
AMSH	svälhtiksygmilpesvai vcspx fortg fyklydhelæeisscrokgfhph
Ron11	gvbintoosfealseravavvvdpiosvkgkvvidafrlinammvlghe frottsnigh
Jab 1	GIÖVSTÖMINOOFDE PYVAVVIDPTRTISAGKYNIGAFRTY PKGYK PPDEG PSEYO
	>1
AMSH1	TKEPRLYSICKHV-LYKDIKIIVLDIR
AMSH2	Treprifsiorfisgiisgtal
amsh	SNDPP LFCSC SHVTVVDRAVTITDLR
Rpn11	inkps iqali həinrhyys i tinyrknele okmlanıhkk swæð utiod ysehckhnes
Jab 1	tiplnkiedfgvhckqyyalevsyfkssldrkllellwnkywvntlssssllinadytty
	1 1
amsh1	18 May 18 Ap
AMSH2	
AMSH	
Rpnll	vvkemielaknynka veeedkhiteeqlaik nygkodprrhleehy dylkisnivoclaak:
Jab1	Qvfdlsekilqseaqigrgsfma——lethdrksedklakatrdsckttieaihgimsqv
AMSHI	-
AMSH2	c00 Tags with data with part with Tags year with man
AMSH	40 Note that the part and the first that the thirt
Rpn11	TDTAA KK
Jab1	IKDKLFNQINIS
	·
4	

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AMSH1
                        -- MFD HIDVS LSPEERVRALSKLGCNITISEDITPRR 35
   AMSH2
           MOQ PTTVN SLKKLAAMPDHIDVS LSPEERVRALSKLGCNITISEDITPRR 50
   AMSH
             ------MEDHGDVSLPFEDRVRALSQLGSAVEVNEDIPPRR 35
                           AMSH1
           YERSGVEMERMAS VYLEEGHLEN A FYLYNK FITLEVEK LENHRDYQQCAV 85
   AMSH2
           YFRSGVEMERMAS VYLEEGHLEN A EVLYNK FITLEVEK LENHR DYOOC AV 100
           YFRSGVEIIRMASIYSEEGNIEHAFILYNEYITLETEKLPKHRDYKSAVI 85
   AMSH.
           ********* ******* ** ****************
           PEKODIMKKIKEI AFFRIDELKNDLIKKYNVEYQEYLQSKNKYKAEILKK 135
  AMSHI
   AMSH2
           PEKODINKKIKEIAFFRIDEIKNDLIKKYNVEYQEYIQSKNKYKAEILKK 150
   AMSH
           PEKKDIVKKIKETAFPKAEEIKAELIKRYIKEYTEYNEEKKKEAEELARN 135
           AMSH1
           LEHORLIE AERKRIAGAROOOLE SEQIL VIEDOLKKOELARGOMRSQOTS 185
           LEHORLIE AERKRIAONROOOLE SEOTLITETOLKKOE LARGURSOOTS 200
MAIGOELEKEKORVAOOROOOLE OEG THATEEMIRNOELEKERIKIVOEF 185
   AMSH2
   AMSH
           G-LBEQIDGSALSCFS--THONNSLLNVFADQPNKSDATNYASHSPPVNR 232
  AMSH1
           G-LSEQIDGSALSCYS--THONNSLINVFADOPNKSDATNYASHSPPVNR 247
  AMSH2
  HEMA
           GKVDPGLGGPLVPDLEKPSLDVFPTLTVSSIQPSDCHTIVRPAKPPVVDR 235
                                  . *,* : **....* .::.* *:*
                1. *. 2. 1.
  AMSH1
           ALTPARTLEAVON LAVEGERCAA LPEDECHKELOLAESNIARGIETOGIL 282
  AMSH2
           ALTPAATLSAVON LYVEGLRCVV LPEDLCHKFLOLAESNIVRGIETCGIL 297
  AMSH
           SIX PGALSNEESI PTIDGIRHVVVPGRLCPQTLQLASANTARGVETCGIL 285
                         ...*** **:*
                                      ** :****, : **, **; **
                   . .
Li
  AMSH1
           CGK LITHNE TTITH VIVEK QSAGPDYCDMENVEE LYNVQDQHDLLITLGWIH 332
           CGK LITHE FTITHVIVFK OSAGPDYCDMENVEE LENVODOHDLLTLGH IN 347
CGK LMRNE FTITHVLIFK OSAGSDYCHTENEER LELIODOOGLITIGHIN 335
  AMSH2
  AMSH
           **** ; ********* ; ***** , *** , ** *** ; *** , * ; ***
  AMSH1
           THPTOTAYLSSVELHTHC SYQLMLPEALATVCS PKHRDTGITRLINAGML 382
           AMSH2
  AMSH
N
  THPMA
           EVSACKKGRHCHTKEPRLFSICKHV--LVKDIKIIVLDLR------ 421
          EVSACKKEGFHPHTKEPRLFSIQKFLSGIISGTALEMEPLKIGYGPNGFP 447
  AMSH2
  AMSH
           EISSCRQKGFHPHSKDPPLFCSCSHVT--VVDRAVTITDLR----- 424
           ************** **. ...
  AMSH1
  AMSH2
           LLGISRSSSPSEQL 461
  AMSH
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VGRLENAIGWYHSHPGYGCWLSGIDVSTQMLNQQFQEPFVA--VVIDPTRTISAGKVNLG COP9_su5_Hs VGRMEHAVGWYHSHPGYGCWLSGINVSTQMLNQTYQEPFVA--IVVDPVRTVSAGKVCLG COP9_su5_Dm AGRLENVVGWYHSHPGYGCWLSGIDVSTQRLNQQHQEPFLA--VVIDPTRTVSAGKVEIG COP9_su5_At EGRKEKVVGWYHSHPGYGCWLSGIDVSTQTLNQKFQEPWVA--IVIDPLRTMSAGKVDIG COP9_su5_Ce LPIGMKVFGTVHSHPSPSCRPSEEDLSLFTRFGKYHIIVCY--PYDENSWKCYNRKGEEV AF2198 Arcfu MPHDESIKGTFHSHPSPFPYPSEGDLMFFSKFGGIHIIAAF--PYDEDSVKAFDSEGREV PH0451_Pyrho TVN1035_Thevo KPIDFSLVGSVHSHPSGITKPSDEDLRMFSLTGKIHIIVGY--PYNLKDYSAYDRSGNKV LPPFTGAVGSVHSHPGPVNLPSAADLHFFSKNGLFHLIIAH--PYTMETVAAYTRNGDPV MTH971 Metth ISKGMEIVGVYHSHPDHPDRPSQFDLQRAFPDLSYIIFSVQ--KGKVASYRSWELKGDKF aq_1691_Aquae EDADEVPVVIYHSHTATEAYPSRTDVKLATEPDAHYVLVSTRDPHRHELRSYRIVDGAVT RV1334 Myctu IKINASALILAHNHPSGCAEPSKADKLITERIIKSCQFMDL--RVLDHIVIGRGEYVSFA RadC Ecoli TOTAL TRANSPORTED TO THE TOTAL STATE OF THE STATE OF THE

FIGURE 3

COP9_su5_Hs	VGRLENAIGWYHSHPGYGCWLSGIDVSTQMLNQQFQEPFVAVVIDPTRTISAGKVNLG
COP9_su5_Dm	VGRMEHAVGWYHSHPGYGCWLSGINVSTQMLNQTYQEPFVAIVVDPVRTVSAGKVCLG
COP9_su5_At	AGRLENVVGWYHSHPGYGCWLSGIDVSTQRLNQQHQEPFLA-~VVIDPTRTVSAGKVBIG
COP9_su5_Ce	EGRKEKVVGWYHSHPGYGCWLSGIDVSTQTLNQKFQEPWVAIVIDPLRTMSAGKVDIG
Pad1_Dm	TGRPEMVVGWYHSHPGFGCWLSGVDINTQQSFEALSERAVAVVVDPIQSVKG-KVVID
Pad1_Hs	TGRPEMVVGWYHSHPGFGCWLSGVDINTQQSFEALSERAVAVVVDPIQSVKG-KVVID
Sks1_Dd	TGRDEIVIGWYHSHPGFGCWLSSVDVNTQQSFEQLQSRAVAVVVDPLQSVRG-KVVID
Pad1_Sc	TGRDQMVVGWYHSHPGFGCWLSSVDVNTQKSFEQLNSRAVAVVVDPIQSVKG-KVVID
* * * * 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	() I I I I I I I I I